



## SAN BERNARDINO MICROWAVE SOCIETY, Incorporated

FOUNDED IN 1968

A NON-PROFIT AMATEUR TECHNICAL ORGANIZATION DEDICATED  
TO THE ADVANCEMENT OF COMMUNICATIONS ABOVE 1000 MC.

# W6IFE Newsletter

## March 2005 Edition

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At the **3 March** meeting Frank, WB6CWN will talk about "The verticon, Flyswatter, his rain scatter experiments and 10 GHz HT". There will be nominations for the SBMS 2005-06 officers. Folks are to bring something to the second auction off during the meeting for the benefit of the Auxiliary Fund, which is to provide extra monies to the treasury for MUD05 expenses. Here are three categories of sales:

1. Whatever it brings, give it to the club.
2. Starting bid needs to be met or it goes back to the owner. If it goes over that, it all goes to the club.
3. Starting bid needs to be met, the club gets a percentage of the final bid.

Put a tag on the items so that I know which category they fit in. The SBMS meets at the American Legion Hall 1024 Main Street (south of the 91 freeway) in Corona, CA at 1900 hours local time on the first Thursday of each month. Check out the SBMS web site at <http://www.ham-radio.com/sbms/>.

**Last meeting** Welcome to new member David Williams WA7GIE of Sandy, UTAH. The upcoming St. Patrick Day 19 March lunch at Dave's Lab was discussed. The SBMS 2 GHz and Up contest info was placed on the SBMS web site. A number of programs were proposed for future meetings. Dan, K6NKC of San Diego visited the meeting. The Auxiliary Auction netted \$405. 22 people present

### **Scheduling.**

19 March there will be another potluck dinner held at Dave's Lab.

7 April Officer Elections and Dick, K6HIJ Rudimentary Microwave measurements

30 April & 7 May SBMS 2 GHz and Up contest see [www.ham-radio.com/sbsm/club contest/2GHz up test 2005.pdf](http://www.ham-radio.com/sbsm/club%20contest/2GHz%20up%20test%202005.pdf).

5 May Doug K6JEY Owens Valley Radio Observatory

2 June Dick Kolbly, K6HIJ "The Perfect IF Radio"

11-13 June ARRL June VHF QSO Party

25-26 June ARRL Field Day

7 July TBD

4 August TBD

6-7 August ARRL UHF Contest

20-21 August ARRL 10 GHz and Up contest

10-12 September ARRL September VHF QSO Party

17-18 September ARRL 10 GHz and Up contest

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**Directions to "Dave's Lab"** 1646 N Wilmington Blvd Wilmington, CA 90744

Take any freeway to the 110 freeway south, get off at PACIFIC COAST Highway

turn left go two lights to Wilmington Blvd turn left

go past Q street and it will be on the right, there will be a parking lot

open just south of the building.

**Activity reported** at the February SBMS- Larry, K6HLH worked the ARRL frequency measuring contest and received a certificate for being less than 1 Hertz off; Charles Patton is now K6PIP; Dan, K6NKC of San Diego was out on the contest with 50 MHz to 1.2 GHz gear; Dick, K6HIJ fired up some old microwave stuff; Pat, N6RMJ did some 902 MHz work and played with 3456 MHz gear; Chip, N6CA has new gears in his space ball" rotor and 3 new dishes; Larry, KG6EG had 10 contacts on 10 GHz; Ed, K6ODV had on contact on 10GHz; Wayne, KH6WZ rebuilt his radio the day before the contest; Dennis, WA6NIA and others went to Inyokern to

be WW2CQ/66 for the contest, January Microwave Journal had an interesting cover with two guys and dish in sun set (hams?) ; Doug, K6JEY has a contact with Australia on 1.2 GHz EME with John, KJ6HZ help; Bob WA6VHS built a K@ kit and has a 36 inch produlan dish; Miguel, W6YLZ indicated the 10 GHz report is out on the ARRL site; Jeff, KN6VR has tower up; Bill, WA6QYR has his DSP-10 about a third built, has a Shera frequency lock sort of working and a ref lock sort of working; Chuck, WA6EXV has the Shera frequency lock running +/- 50 degrees and 2x10-10 error; Frank, WB6CWN has been having fun with his 10 GHz portable rig; Mel, WA6JBD cleaned his garage.

### "Wants and Gots for sale"

Want: six runs of 7/8th inch hardline 100 ft each with connectors if possible Mike W6YLZ 310-383-1000

Want WR-90 to SMA adapter WB6JDH

Want: Schematics for NC-300 National HF receiver and Collins 75A-2 receiver Dick, K6HIJ 760-253-2477  
dick@eventhorizons.com

Want 1296 MHz 90 degree hybrid and 7289 or 2C39 tubes John 951-683-1434.

Want RW320 TWT supply for Siemens RW2135 Blue tube frank WB5CWN 805-358-0064

Want: parts pieces for 2.3 GHz transverter Dan K6NKC 858-569-9402 dbubke@juno.com

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### MICROWAVE UP DATE 2005

Chairman: Pat Coker, N6RMJ of SBMS

Planning Committee: Pat Coker, N6RMJ of SBMS

David Peters, KI6FF of WSWSS

Dennis Kidder, WA6NIA of SBMS

Presentations: Chip Angle, N6CA

Publicity: Wayne, KH6WZ

PRIZES: Dave Glawson, WA6CGR

Registration & Finance: Dick Kolbly, K6HIJ

Family Program: still needs a leader

Location: Sheraton Cerritos Town Center

List of Presentations:

SBMS 50 YEARS Dick Kolbly, K6HIJ

Pat, N6RMJ signed at contract with the Cerritos Hotel. Mel, WA6JBD will be collecting surplus store information for the junk run. The SBMS web site has MUD 2005 subsite. SBMS will be allowed use of the hotel roof for signal sources for the antenna-measuring event. Room rates were discussed at the \$99 level.

The Auxiliary Auction at February meeting. SBMS members raised some \$405 during the auction lead by "Square Deal Doug". HP crystal detectors, an old counter, a key, 2 rubidium signal sources, Mega node Noise

figure meter, Gunnplexers, a collection of cable, 220 MHz 35w amp Heath kit wattmeter, NemsClark receiver some waveguide parts all went for the benefit of the fund to help with expenses of the MUD05. Dennis WA6NIA donated \$100 of each Rubidium sale to the club.

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### Microwave Up Date 2005 Call for Papers

MUD 2005 will be held this year in the Los Angeles area on October 27 thru the 31st. As the Technical Program Chairman this year, I would like to invite interested authors to present a paper(s) for the 2005 conference.

Microwave Update is the premiere microwave amateur radio conference on the planet. Many people around the world collect the proceedings from this conference since it represents the current state of the art in microwave amateur radio. This is a great opportunity to get your ideas and papers published! You don't have to give a talk to get your paper included in the proceedings.

Electronic submissions in Word, WordPerfect or text format accepted by email or CD. Usual drawing formats also accepted with your paper(s).

Cutoff date for inclusion in the proceedings is September 5th, 2005. If you are interested in writing and/or presenting a paper for the 2005Conference, please send me an email or write to:

N6CA PO Box 35 Lomita CA 90717-0035 email: n6ca@ham-radio.com

Please contact me as soon as possible with an abstract or even a general idea. This will help the conference team with its planning activities. For more information about the Microwave UpDate 2005 see:

<http://www.microwaveupdate.org>

73 Chip N6CA

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I stopped off at Apex surplus yesterday and spoke at length with Don Slater, one of the owners. I filled him in on the MUD 2005 surplus tour, and got a chance to see the "microwave room" in their other facility. He assured me that it would be made available for the surplus tour when the time comes. Lot's of good stuff to be had there...  
73, Mel - WA6JBD

### Owens Valley Radio Observatory Project

The OVRO SBMS Project Update--We have finally been given the go ahead by OVRO to go on the air

using their 40m dish on 23cm and 10ghz. We are planning to be on for the fall 2005 ARRL EME contest. At this point we are finalizing the arrangements with OVRO and mid way through building the equipment. We will have two complete transverter at the feed of the antenna running 10 watts on 10ghz and 100 watts on 23cm. We have nearly everything we need except

for final amplifiers. Is anyone able to donate solid-state amplifiers at the approximate level for these bands to the project? This would be either an outright donation or a long-term loan. The dish has about 54db gain at 23cm. Use the EME calculator in

the WSJT program to see how your station stacks up. On 10ghz it has about 70db gain. However it also vastly under illuminates the moon and reflections could be excellent or poor. However, we think that a station running about 20 watts and a 3-4' dish should be workable on CW. If club members are interested in working up at the OVRO site in some capacity, please let us know what you would like to do and when you would be available. Information on OVRO can be found at: [www.ovro.caltech.edu/](http://www.ovro.caltech.edu/) Doug K6JEY Project Director

## OFF email

As many of you know, I have been using the portable 10GHz radio in the rain this season. Aside from getting myself cold and drenched, it's been more fun that I imagined since it consistently enhances local signals, sometimes to incredibly strong levels with a buzz saw's roar. Now I better understand why some of our east coast friends have small radios for the rain.

Consistent is the word here. When it rains, the signals are there. Always. In the front yard, the back yard, among the trees--anywhere there is sky in the general direction of the source. Rain scatter is the mode for everyone who can't find high and clear places to work from at home or near home. When it rains, you have signals in your yard overhead.

A smaller antenna works fine as the signal is scattered anyway. My RCA dish has enough resolution to hear different parts of rain fronts, but a small 22dB horn gets the whole front just as loud. It's easier to put a benign plastic bag over a small antenna too. If your radio and antenna is too large to go outside, try just the radio, less tripod and antenna. Power it up in the garage or car with a horn or even the open end of the waveguide pointed in the air towards PV or Frazier.

Anyone who gets into this will understand what I am next proposing . . . a rain scatter contest, cumulative, the exact days optional based on local rain. Each year, at the end of the rainy season, we tally the reports and award for the most contacts, DX points, stations worked, etc. We should be operating more in the rain folks. Its nature's gift to 10GHz operators, like an Ethernet in the sky we can plug into for a few hours. Feedback welcome, including words from anyone who has some experience in the wet. Frank WB6CWN

Here's a WAV file of the PV and Frazier beacons recorded at the end of my street where I had some horizon without trees. It had been raining for a while here in Thousand Oaks, DM04ne. The battery portable radio is warm and toasty inside a 30-gallon trash bag while I am getting soaked in the rain. Also attached is a radar map of the moment. Rain is nature's 10GHz Ethernet. Anyone on the air in the LA area could be worked with a small radio in the rain. Frank WB6CWN

N6RMJ and I copied PV, Santiago, and Idyllwild together on the lower flanks of Whittier Peak last night. The latter two bounced off something to our south rather than the more easterly direct paths, possibly due to blockage. Earlier on the higher saddle near the top of the hill, I also heard San Diego, and at both stops also copied N6CA's dashes from home the loudest. At one time there were three carriers signing N6CA on 10GHz.

Originally this was a solo trip, but Pat N6RMJ drove all the way from home to jump-start my dead battery at midnight, talked dead by this overzealous ham. Time for two batteries.

Thanks Pat and Chip. Frank WB6CWN

## Beacons-

Heaps Peak DM14kf 34.14.2.4n 117.8.25.2w 8kft horz 1296.0-.2 MHz in 2304.6-.8 MHz out

Frazier Mtn DM04ms 8013 ft 10,386.3104 MHz 1.4w 14-dBi-omni horz.

Palos Verde DM03ts 1300 ft 10,368.300 MHz 1.6w 14-dBi-omni horz.

San Diego DM12mq 32.41.8n 116.56.09w 10,368.070 MHz 14 dbm 10db omni horz

Santiago DM13fr 33.42.690n 117.32.020w 5664 ft 10,368.330 MHz 0.5w 10dbi horz

ATV: 2441.5 MHz in 5.9 GHz out 10.368.4 MHz in 3460 MHz out



The latest modifications to Wayne's (KH6WZ) 10 GHz rig as seen at the Inyokern site during the January contest.

73's Bill



Frank, WB6CWN with his 10 GHz "Handy Talky" rig at the February SBMS meeting..

The San Bernardino Microwave Society is a technical amateur radio club affiliated with the ARRL having a membership of over 90 amateurs from Hawaii and Alaska to the east coast and beyond. Dues are \$15 per year, which includes a badge and monthly newsletter. Your mail label indicates your call followed by when your dues are due. Dues can be sent to the treasurer as listed under the banner on the front page. If you have material you would like in the newsletter please send it to Bill WA6QYR at 247 Rebel Road Ridgecrest, CA 93555, [bburns@ridgecrest.ca.us](mailto:bburns@ridgecrest.ca.us), or phone 760-375-8566. The newsletter is generated about the 15th of the month and put into the mail at least the week prior to the meeting. This is your newsletter. SBMS Newsletter material can be copied as long as SBMS is identified as source.

San Bernardino Microwave Society newsletter

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